

P2001,0356 - Application No. 10/715,073  
Response to Office action July 16, 2008  
Response submitted October 16, 2008

Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1-16 remain in the application. Claim 9 has been amended. Claims 1-8, 15, and 16 have been withdrawn from consideration.

In item 3 on page 2 of the above-identified Office action, claims 9, 10, 13, and 14 have been rejected as being fully anticipated by Maeda et al. (U.S. Patent No. 6,947,587) (hereinafter "Maeda") under 35 U.S.C. § 102.

The rejection has been noted and the claims have been amended in an effort to even more clearly define the invention of the instant application. The claims are patentable for the reasons set forth below. Support for the changes is found on page 13, line 13 to page 14, line 5 of the specification.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 9 calls for, *inter alia*:

loading the semiconductor device through a load port for providing the semiconductor device to a device transfer area adjacent the processing tool, transferring the semiconductor device from the device transfer area to the processing tool via the input slot, recording a first image of the semiconductor device within the processing tool by using the optical sensor, performing a process step on the semiconductor device, recording a second image of the semiconductor device within the processing tool by using the optical sensor, transferring the semiconductor device back to the device transfer area via the output slot.

The present invention as claimed pertains to a method that is suited to cleanroom area processing tools having a loadport, where device carriers are laid upon in order to be unloaded from their device load by means of robot arms. Those processing tools commonly provide a mini-environment within, and all device handling is arranged such as to minimize contamination with particles due to, e.g., mechanical friction and abrasion (page 5, last paragraph of the specification).

Maeda discloses a method for detecting defects on a semiconductor device. However, Maeda does not disclose detecting defects on a semiconductor device within a processing tool. Contrary to the Examiner's position on page 2 of the Office action, the first two lines of the abstract do not disclose that semiconductor device is disposed within a processing tool when the defects are inspected. Therefore, Maeda only discloses that a plurality of patterns that have

been formed and those patterns are inspected. Furthermore, Fig. 7 of Maeda does not show a processing tool. Fig. 7 of Maeda only shows a device for inspecting defects without showing any processing tools for processing a semiconductor wafer. This is contrary to the present invention as claimed.

Furthermore, Maeda does not show a device transfer area of a processing tool. This is contrary to the present invention as claimed, in which the device transfer area is used to forward the semiconductor device to the processing tool and to receive the semiconductor device from the processing tool.

At the cited passage on columns 4 and 5 of Maeda, Maeda only discloses that a stage on which a wafer can be placed. Maeda does not disclose any processing tools. Consequently, Maeda does not disclose the first method step of claim 9. Namely that of loading the semiconductor device through a load port for providing the semiconductor device to a device transfer area adjacent the processing tool. Furthermore, it is respectfully noted that the Examiner's allegation that moving the semiconductor around and performing a scan and alignment process reads on the limitations in claim 9 of transferring the semiconductor device to the processing tool, performing a process on the semiconductor device, and transferring the

semiconductor device back to the device transfer area, is not reasonable at all.

The reference does not show loading the semiconductor device through a load port for providing the semiconductor device to a device transfer area adjacent the processing tool, transferring the semiconductor device from the device transfer area to the processing tool via the input slot, recording a first image of the semiconductor device within the processing tool by using the optical sensor, performing a process step on the semiconductor device, recording a second image of the semiconductor device within the processing tool by using the optical sensor, transferring the semiconductor device back to the device transfer area via the output slot, as recited in claim 9 of the instant application. The Maeda reference discloses inspecting a semiconductor device on a stage. Maeda does not disclose processing tools for processing a semiconductor device. Maeda does not disclose inspecting a semiconductor device within a processing tool. This is contrary to the present invention as claimed, which recites loading the semiconductor device through a load port for providing the semiconductor device to a device transfer area adjacent the processing tool, transferring the semiconductor device from the device transfer area to the processing tool via the input slot, recording a first image of the

semiconductor device within the processing tool by using the optical sensor, performing a process step on the semiconductor device, recording a second image of the semiconductor device within the processing tool by using the optical sensor, transferring the semiconductor device back to the device transfer area via the output slot.

Since claim 9 is allowable over Maeda, dependent claims 10, 13, and 14 are allowable over Maeda as well.

In item 5 on page 4 of the Office action, claim 11 has been rejected as being obvious over Maeda (U.S. Patent No. 6,947,587) in view of Takeuchi et al. (U.S. Patent No. 2002/0093656) (hereinafter "Takeuchi") under 35 U.S.C. § 103. Takeuchi does not make up for the deficiencies of Maeda. Since claim 9 is allowable, dependent claim 11 is allowable as well.

In item 6 on page 5 of the Office action, claim 11 has been rejected as being obvious over Maeda (U.S. Patent No. 6,947,587) in view of Spindt et al. (U.S. Patent No. 6,338,662) (hereinafter "Spindt") under 35 U.S.C. § 103. Spindt does not make up for the deficiencies of Maeda. Since claim 9 is allowable, dependent claim 12 is allowable as well.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 9. Claim 9 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 9, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-16 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

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Please charge any other fees which might be due with respect  
to Sections 1.16 and 1.17 to the Deposit Account of Lerner  
Greenberg Stemmer LLP, No. 12-1099.

Respectfully submitted,

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